

#749

81-070B-01D

81-070B-02G

DYNAMICS EXPLORER - 2 (DE-2)

VEFI & MAGB DATA BASE

81-070B-01D

81-070B-02G

DE-2

VEFI & MAGB MERGED DATA BASE

THIS DATA SET CONSISTS OF 7 8MM TAPES. THE TAPES WERE CREATED ON A MICROVAX SYSTEM IN BACKUP FORMAT. THEY ARE LABELED AND CONTAIN A SAVESET PER TAPE, WHICH IS LISTED BELOW. THE VEFI DATASET IS DESCRIBED IN THE FILE VEFIVOLDESC.SFD, WHILE THE MAGB DATASET IS DESCRIBED IN MAGBVOLDESC.SFD.

D#	C#	FILES	TIMESPANS	LABEL
D-107559	C-031496	2	08/15/81-10/17/81	VEFIMAG_1
D-107560	C-031497	1	10/18/81-11/23/81	VEFIMAG_2
D-107561	C-031498	2	11/24/81-12/31/81 01/01/82-02/18/82 (except 82038,82042)	VEFIMAG_3_4
D-107562	C-031499	2	02/19/82-04/19/82 (and 82038,82042) 04/20/82-06/03/82	VEFIMAG_5_6
D-107563	C-031500	2	06/04/82-07/26/82	VEFIMAG_7
D-107564	C-031501	2	07/27/82-10/03/82 10/04/82-11/20/82	VEFIMAG_8_9
D-107565	C-031502	2	11/21/82-01/18/83 01/19/83-02/16/83	VEFIMAG_10_11

LISTING OF SAVESET NAMES

D-107559	SAVESET=VEFIMAG1.BCK
D-107560	SAVESET=VEFIMAG2.BCK
D-107561	SAVESET=VEFIMAG3.BCK SAVESET=VEFIMAG4.BCK
D-107562	SAVESET=VEFIMAG5.BCK SAVESET=VEFIMAG6.BCK
D-107563	SAVESET=VEFIMAG7.BCK

D-107564

SAVESET=VEFIMAG8.BCK
VEFIMAG9.BCK

D-107565

SAVESET=VEFIMAG10.BCK
VEFIMAG11.BCK

DYNAMICS EXPLORER 2 (DE-2) VECTOR ELECTRIC FIELD INSTRUMENT (VEFI)
AND MAGNETOMETER (MAGB) MERGED DATA BASE

This data set is a combination of the VEFI and MAGB high resolution data sets in SPC coordinates submitted to NSSDC. The following OA parameters have been added to the data set: Model magnetic field in SPC coordinates, altitude of the satellite, geographic latitude and longitude, magnetic local time, and invariant latitude.

The VEFI data set is described in the file VEFIVOLDESC.SFD and the MAGB data set is described in the file MAGBVOLDESC.SFD, these files are portions of the SFDU metadata files submitted with the VEFI and MAGB data to NSSDC and are included in each volume of this data set.

This data set consists of daily files from day 81227 to day 83047. Each file contains all the data available for a given day. During the merging of the data sets it was found that although VEFI and MAGB should cover the same time spans, they do not, due perhaps to the fact that the original MAGB high resolution data set was created on the DE Sigma-9 using the DE telemetry tapes, while the VEFI high resolution data set was created on the DE MicroVAX system using the DE telemetry data base on optical disk. In order to keep the largest amount of data possible, the merged data set includes all the available VEFI and MAGB data, for those times when VEFI data was available but MAGB was not (6.54%), a fill data value of 9999999. was given to the MAGB data and for those times when MAGB data was available but VEFI was not (6.87%), the fill data value was assigned to the VEFI data. Times for which both VEFI and MAGB data were fill values in the original data sets were not included in the merged data set. There were also times when certain OA parameters were fill values in the OA data base and they are therefore also fill values in this merged data set. The model magnetic field had fill values for 8.55% of the data. Statistics were not kept for the other OA parameters.

Each daily file contains a record per measurement. The total number of records in each file varies depending on the amount of data available for a given day.

Each record of each daily file contains the following information:

VTIME	Integer*4	Time of the VEFI measurement in tenths of milliseconds
EX	Real*4	X-Component of the VEFI electric field in SPC coord
EY	Real*4	Y-Component of the VEFI electric field in SPC coord
MTIME	Integer*4	Time of the MAGB measurement in tenths of milliseconds
BX	Real*4	X-Component of the MAGB magnetic field in SPC coord
BY	Real*4	Y-Component of the MAGB magnetic field in SPC coord
BZ	Real*4	Z-Component of the MAGB magnetic field in SPC coord
BXM	Real*4	X-Component of the model magnetic field in SPC coord
BYM	Real*4	Y-Component of the model magnetic field in SPC coord
BZM	Real*4	Z-Component of the model magnetic field in SPC coord
ALT	Real*4	Altitude of the satellite
GLAT	Real*4	Geographic Latitude
GLONG	Real*4	Geographic Longitude
MLT	Real*4	Magnetic Local Time
ILAT	Real*4	Invariant Latitude

Each record was written in VAX binary and can be read in VAX fortran using the following statement:

```
READ(UNIT) VTIME, EX, EY, MTIME, BX, BY, BZ, BXM, BYM, BZM, ALT, GLAT, GLONG,  
MLT, ILAT
```

Care must be taken to declare VTIME as integer*4 and MLT and ILAT
as real*4

A-107541
C-031489

#####

```

$ exit
$ IF FMODE() .EQS. "BATCH" THEN EXIT
$ set verify
%DCL-I-ALLOC, _MKA600: allocated
%MOUNT-I-WRITELOCK, volume is write locked
%MOUNT-I-MOUNTED, VM_3_4 mounted on _MKA600:
Listing of save set(s)

Save set: VEFIMAG3.BCK
Written by: VEFI
UIC: [000320.0000151]
Date: 27-OCT-1992 14:11:43.38
Command: BACKUP DEVIO$DUD0:(MAIN...1 MUB0:VEFIMAG3.BCK/BLOCKSIZE=32768/IGNORE=LABEL/LOG
Operating system: VAX/VMS version V5.4
BACKUP version: V5.4
CPU ID register: 08000000
Node name: _MAGSPA::
Written on: _MAGSPA$MUB0:
Block size: 32768
Group size: 10
Buffer count: 3

```

```

[MAIN]DATA.DIR:1
[MAIN.DATA]VR81328.DAT:1 56441 14-SEP-1992 13:33
[MAIN.DATA]VR81329.DAT:1 58372 13-SEP-1992 20:04
[MAIN.DATA]VR81330.DAT:1 58323 14-SEP-1992 21:50
[MAIN.DATA]VR81331.DAT:1 57905 14-SEP-1992 10:50
[MAIN.DATA]VR81332.DAT:1 57213 14-SEP-1992 15:47
[MAIN.DATA]VR81333.DAT:1 54372 14-SEP-1992 14:29
[MAIN.DATA]VR81334.DAT:1 59954 14-SEP-1992 11:02
[MAIN.DATA]VR81335.DAT:1 52083 14-SEP-1992 16:38
[MAIN.DATA]VR81336.DAT:1 52883 14-SEP-1992 17:24
[MAIN.DATA]VR81337.DAT:1 52973 14-SEP-1992 19:29
[MAIN.DATA]VR81338.DAT:1 51768 14-SEP-1992 22:49
[MAIN.DATA]VR81339.DAT:1 55091 15-SEP-1992 02:01
[MAIN.DATA]VR81340.DAT:1 61256 14-SEP-1992 21:40
[MAIN.DATA]VR81341.DAT:1 51920 15-SEP-1992 00:00
[MAIN.DATA]VR81342.DAT:1 41307 15-SEP-1992 01:46
[MAIN.DATA]VR81343.DAT:1 54837 14-SEP-1992 22:19
[MAIN.DATA]VR81344.DAT:1 51676 14-SEP-1992 22:21
[MAIN.DATA]VR81345.DAT:1 45489 15-SEP-1992 00:12
[MAIN.DATA]VR81346.DAT:1 57048 15-SEP-1992 01:39
[MAIN.DATA]VR81347.DAT:1 51509 15-SEP-1992 09:40
[MAIN.DATA]VR81348.DAT:1 55953 15-SEP-1992 22:31
[MAIN.DATA]VR81349.DAT:1 40532 16-SEP-1992 02:08
[MAIN.DATA]VR81350.DAT:1 44713 16-SEP-1992 04:38
[MAIN.DATA]VR81351.DAT:1 54475 16-SEP-1992 07:27
[MAIN.DATA]VR81352.DAT:1 44754 16-SEP-1992 11:14
[MAIN.DATA]VR81353.DAT:2 49724 15-SEP-1992 09:47
[MAIN.DATA]VR81354.DAT:1 49724 15-SEP-1992 09:47
[MAIN.DATA]VR81355.DAT:1 44978 15-SEP-1992 16:38
[MAIN.DATA]VR81356.DAT:1 47932 15-SEP-1992 20:19
[MAIN.DATA]VR81357.DAT:1 46375 15-SEP-1992 22:57
[MAIN.DATA]VR81358.DAT:1 48000 16-SEP-1992 02:06
[MAIN.DATA]VR81359.DAT:1 41651 16-SEP-1992 04:34
[MAIN.DATA]VR81360.DAT:1 30571 16-SEP-1992 06:22
[MAIN.DATA]VR81360.DAT:1 45553 15-SEP-1992 09:31

```

```

[MAIN.DATAVM81361.DAT:1 36304 15-SEP-1992 12:11
[MAIN.DATAVM81362.DAT:2 28443 15-SEP-1992 15:37
[MAIN.DATAVM81363.DAT:1 44610 15-SEP-1992 20:56
[MAIN.DATAVM81364.DAT:1 50916 16-SEP-1992 07:22
[MAIN.DATAVM81365.DAT:1 37928 16-SEP-1992 11:22
[MAINMAGBVLDESC.SFD:3 16 20-OCT-1992 16:47
[MAINJREADME.DOC:5 9 23-OCT-1992 10:31
[MAINJSPARE.DIR:1 1 14-SEP-1992 13:33
[MAINJVEFIVOLDESC.SFD:2 32 20-OCT-1992 16:46

```

Total of 44 files, 1925617 blocks
End of save set

```

Save set: VEFIHAG4.BCK
Written by: VEF I
UIC: [000320,0000151
Date: 28-OCT-1992 09:47:08.50
Command: BACKUP DEXIO$DUD0:(MAIN...1 MUB0:VEFIHAG4.BCK/BLOCKSIZE=32768/IGNORE=LABEL/LOG
Operating system: VAX/VMS version V5.4
BACKUP version: V5.4
CPU ID register: 08000000
Node name: _MAGSPA:
Written on: _MAGSPA#RUB0:
Block size: 32768
Group size: 10
Buffer count: 3

```

```

[MAIN]DATA.DIR:1 3
[MAIN.DATAVM82001.DAT:1 43337 16-SEP-1992 15:56
[MAIN.DATAVM82002.DAT:1 28451 16-SEP-1992 12:04
[MAIN.DATAVM82003.DAT:1 46113 16-SEP-1992 16:32
[MAIN.DATAVM82004.DAT:1 36821 16-SEP-1992 18:37
[MAIN.DATAVM82005.DAT:1 43442 16-SEP-1992 20:40
[MAIN.DATAVM82006.DAT:1 23042 16-SEP-1992 23:14
[MAIN.DATAVM82007.DAT:1 49235 17-SEP-1992 00:45
[MAIN.DATAVM82008.DAT:1 38148 17-SEP-1992 03:49
[MAIN.DATAVM82009.DAT:1 49530 16-SEP-1992 21:25
[MAIN.DATAVM82010.DAT:1 44767 17-SEP-1992 01:49
[MAIN.DATAVM82011.DAT:1 26515 16-SEP-1992 16:00
[MAIN.DATAVM82012.DAT:1 44438 16-SEP-1992 17:27
[MAIN.DATAVM82013.DAT:1 29592 16-SEP-1992 23:41
[MAIN.DATAVM82014.DAT:1 47423 17-SEP-1992 01:10
[MAIN.DATAVM82015.DAT:1 44591 17-SEP-1992 02:52
[MAIN.DATAVM82016.DAT:1 41657 17-SEP-1992 04:23
[MAIN.DATAVM82017.DAT:2 45085 17-SEP-1992 05:49
[MAIN.DATAVM82018.DAT:2 41283 17-SEP-1992 05:14
[MAIN.DATAVM82019.DAT:1 47052 17-SEP-1992 07:31
[MAIN.DATAVM82020.DAT:1 32558 16-SEP-1992 15:53
[MAIN.DATAVM82021.DAT:1 46200 16-SEP-1992 17:19
[MAIN.DATAVM82022.DAT:1 30472 16-SEP-1992 18:50
[MAIN.DATAVM82023.DAT:1 38378 16-SEP-1992 19:55
[MAIN.DATAVM82024.DAT:1 35341 16-SEP-1992 21:12
[MAIN.DATAVM82025.DAT:1 40685 17-SEP-1992 00:37
[MAIN.DATAVM82026.DAT:1 49635 17-SEP-1992 12:04
[MAIN.DATAVM82027.DAT:1 32539 17-SEP-1992 21:34
[MAIN.DATAVM82028.DAT:1 46464 18-SEP-1992 00:57
[MAIN.DATAVM82029.DAT:1 37699 18-SEP-1992 04:45
[MAIN.DATAVM82030.DAT:1 44407 18-SEP-1992 06:14
[MAIN.DATAVM82031.DAT:1 39651 18-SEP-1992 12:05
[MAIN.DATAVM82032.DAT:1 40484 17-SEP-1992 21:32
[MAIN.DATAVM82033.DAT:1 34113 18-SEP-1992 01:36
[MAIN.DATAVM82034.DAT:1 30070 17-SEP-1992 09:33
[MAIN.DATAVM82035.DAT:1 40395 17-SEP-1992 11:47
[MAIN.DATAVM82036.DAT:1 39291 17-SEP-1992 14:30
[MAIN.DATAVM82037.DAT:1 31109 17-SEP-1992 21:09
[MAIN.DATAVM82039.DAT:1 32658 18-SEP-1992 13:37

```

```

[MAIN.DATA.IVR82040.DAT:1
[MAIN.DATA.IVR82041.DAT:1
[MAIN.DATA.IVR82043.DAT:1
[MAIN.DATA.IVR82044.DAT:1
[MAIN.DATA.IVR82045.DAT:1
[MAIN.DATA.IVR82046.DAT:1
[MAIN.DATA.IVR82047.DAT:1
[MAIN.DATA.IVR82048.DAT:1
[MAIN.DATA.IVR82049.DAT:1
[MAIN.IMAGVOLDESC.SFD:3
[MAIN.README.DOC:5
[MAIN.JSPARE.DIR:1
[MAIN.IVEFIVOLDESC.SFD:2
33817 18-SEP-1992 07:20
26722 18-SEP-1992 09:06
20395 17-SEP-1992 10:50
32494 17-SEP-1992 11:53
35415 17-SEP-1992 13:01
29796 17-SEP-1992 17:01
33367 17-SEP-1992 19:29
35604 17-SEP-1992 23:15
37965 18-SEP-1992 02:44
16 20-OCT-1992 16:47
9 23-OCT-1992 10:31
1 16-SEP-1992 15:56
32 20-OCT-1992 16:46

```

```

Total of 52 files, 178307 blocks
End of save set

```

```

RANEY Job terminated at 10-MAY-1994 15:06:30.46

```

Accounting information:

```

Buffered I/O count: 204 Peak working set size: 1163
Direct I/O count: 64936 Peak page file size: 4229
Page faults: 4135 Mounted volumes: 1
Charged CPU time: 0 00:24:57.79 Elapsed time: 0 02:19:46.46

```